

### **REMARKS**

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-21 are pending. Claims 1, 14, and 18-21 have been presently amended.

In the Official Action, Claims 18-21 were rejected under 35 U.S.C. § 101; Claims 1, 5-8, 10-14, 16-18, 20, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Matsumoto et al. (U.S. Patent No. 6,647,125); and Claims 2-4, 9, 15 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Nakajima (U.S. Patent No. 6,650,437).

**Regarding the 35 U.S.C. § 101 rejection**, Claims 18-21 are amended in response to the rejection under 35 U.S.C. § 101 to define statutory subject matter. See M.P.E.P. § 2106.01(I). Thus, this rejection has been overcome.

**Regarding the art rejections**, amended Claim 1 is directed to an image processing apparatus, comprising:

- a communication unit configured to exchange data with an external device;

- an attribute determination unit that determines an image attribute of a first image signal *on a pixel by pixel basis* to generate an attribute signal indicating the image attribute;

- an embedding unit that embeds the attribute signal in the first image signal in a predetermined format to obtain a second image signal; and

- a storage unit that stores the attribute signal and one of the first image signal and the second image signal, wherein

- the second image signal is transmitted to the external device through the communication unit. [Emphasis Added.]

With regard to the present clarifications, Claim 1 (and the other independent claims) have been amended to define the determination of an image attribute of an image signal *on a pixel by pixel basis*.

Examples of specific image attributes are provided in the specification on pages 11-13 and include a black-character identification signal, a color-character identification signal, a character identification signal, a dot identification signal, and a continuous-tone identification signal. Moreover, on page 12, lines 21-23, the specification states that the image separator 14 determines image area attributes of the RGB signals input through the scanner 1 pixel by pixel and outputs a character identification signal.

The outstanding Office Action applied Matsumoto et al for a teaching of an image attribute which included information such as format ID, title, producer, keyword, comment, final owner, revision number (number of times of savings of the object), total editing time, date and time of final print, date and time of original preparation, date and time of final storage, thumbnail attribute, and application used for preparation. See Office Action, page 4, lines 6-11.

Yet, Matsumoto et al describe methods for the handling of compressed image data in which groups of pixels have been compressed to save transmission bandwidth. For instance, Matsumoto et al describe at col. 5, lines 44-61:

As shown in FIG. 5, the image of each resolution layer *is divided into tiles* each consisting of  $M \times N$  pixels. When the image is divided into the tiles of  $M \times N$  pixels starting from the upper left corner, a blank portion may be generated in a part of the tiles at the right-hand end and/or at the lower end (indicated by a hatched area).

In such case the tile of  $M \times N$  pixels is completed by inserting the pixel at the right-hand end or at the lower end repeatedly.

The image of *each tile is memorized in a data format of JPEG compression*, single color or non compression. The JPEG compression is an image compressing method of international standard defined by ISO/IEC JTC1/SC29. The single color is a data format, in case an entire tile is

substantially composed of a single color, of representing the color of the tile by a single color instead of memorizing the individual pixel values. This data format is effective particularly for an image generated by computer graphics. [Emphasis Added.]

Accordingly, it is the attributes of the image document (as noted above in the Office Action's assessment of Matsumoto et al's attribute signal) or the attributes of the resultant image (see ninth embodiment of Matsumoto et al) that are determined in Matsumoto et al.

Matsumoto et al do not disclose or suggest determination of an image attribute of a first image signal *on a pixel by pixel basis* to generate an attribute signal indicating the image attribute, as defined in independent Claims 1, 14, and 18.

The deficiencies in Matsumoto et al are not overcome by Nakajima.

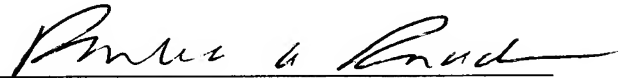
M.P.E.P. § 2131 requires for anticipation that each and every feature of the claimed invention must be shown in as complete detail as is contained in the claim. M.P.E.P. § 2143.03 requires, to establish a case of *prima facie* obviousness, all the claim limitations must be taught or suggested by the prior art.

Accordingly, with the above-noted feature of the determination of an image attribute of a first image signal on a pixel by pixel basis not in the applied art, independent Claims 1, 14, and 18 as presently amended (and the claims dependent therefrom) are believed to patentably define over the art of record.

**Conclusion**, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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